

CLAIMS

What is claimed is:

1. A method for printing to sheet media, the method comprising:
 - disengaging a first intermediate transfer member (ITM) from a first impression drum (IMP),
 - applying at least one color layer to the first ITM while the first ITM and the first IMP are disengaged,
 - transporting a first sheet media between the first ITM and the first IMP while the first ITM and the first IMP are disengaged,
 - engaging the first ITM with the first IMP,
 - transporting a second sheet media between the first ITM and the first IMP, and
 - transferring the color layers from the first ITM onto the second sheet media.
2. The method of claim 1 wherein applying at least one color layer to the first ITM includes applying at least one color layer to the first ITM while transporting the first sheet media between the first ITM and the first IMP.
3. The method of claim 1 further including, with the first ITM and first IMP engaged, applying at least one additional color layer to the first ITM and transferring each additional color layer to the second sheet media.
4. The method of claim 1 further including:
 - disengaging a second ITM from a second IMP,
 - applying at least one color layer to the second ITM while the second ITM and the second IMP are disengaged,
 - engaging the second ITM with the second IMP,
 - transporting the first sheet media between the second ITM and the second IMP, and

transferring the color layers from the second ITM onto the first sheet media.

5. The method of claim 4 further including, with the second ITM and second IMP engaged, applying at least one additional color layer to the second ITM and transferring each additional color layer to the first sheet media.

6. The method of claim 4 further including:
disengaging the second ITM from a second IMP after the color layers are transferred to the first sheet media and
transporting the second sheet media between the second ITM and the second IMP while the second ITM and the second IMP are disengaged.

7. The method of claim 1 further including:
disengaging a second ITM from a second IMP,
applying at least one color layer to the second ITM, and
transporting the second sheet media between the second ITM and the second IMP while applying one of the color layers to the second ITM.

8. The method of claim 1 further including:
disengaging a second ITM from a second IMP and
transporting the second sheet media between the second ITM and the second IMP while the second ITM and the second IMP are disengaged.

9. A printing system for printing to sheet media, the printing system comprising;

a first intermediate transfer member (ITM) configured to receive a plurality of color layers and transfer the color layers to the sheet media;

a first impression drum (IMP) selectively engageable with the first ITM, the first IMP configured to hold the sheet media while the first ITM transfers color layers onto the sheet media;

an application controller configured to apply at least one color layer to the first ITM while the first ITM is disengaged from the first IMP; and

a transport system configured to transport a first sheet media between the first ITM and the first IMP while the first ITM and the first IMP are disengaged and to transport a second sheet media between the first ITM and the first IMP while the first ITM and the first IMP are engaged.

10. The printing system of claim 9 wherein the application controller is further configured to, with the first ITM and first IMP engaged, apply at least one color layer to the first ITM.

11. The printing system of claim 9 wherein the transport system is further configured to transport the first sheet media between the first ITM and the first IMP while applying a color layer to the first ITM.

12. The printing system of claim 9 further including
a second ITM configured to receive a plurality of color layers and transfer the color layers to the sheet media;
a second IMP selectively engageable with the second ITM, the second IMP configured to hold the sheet media while the second ITM transfers color layers onto the sheet media; and
wherein the transport system is further configured to transport the sheet media between the second ITM and the second IMP.

13. The printing system of claim 12 wherein the application controller is further configured to apply at least one color layer to the second ITM while the second ITM is disengaged from the second IMP.

14. The printing system of claim 12 wherein the application controller is further configured to, with the second ITM and second IMP engaged, apply at least one color layer to the second ITM.

15. The printing system of claim 12 wherein the transport system is further configured to transport the sheet media between the second ITM and the second IMP while the second ITM and the second IMP are disengaged.

16. The printing system of claim 12 wherein the transport system is further configured to transport the sheet media between the second ITM and the second IMP while applying one of the color layers to the second ITM.

17. A program storage system readable by a computer, tangibly embodying a program, applet, or instructions executable by the computer to perform method steps for controlling a printing system, the method comprising:

disengaging a first intermediate transfer member (ITM) from a first impression drum (IMP),

applying at least one color layer to the first ITM while the first ITM and the first IMP are disengaged,

transporting a first sheet media between the first ITM and the first IMP while the first ITM and the first IMP are disengaged,

engaging the first ITM with the first IMP,

transporting a second sheet media between the first ITM and the first IMP, and

transferring the color layers from the first ITM onto the second sheet media.

18. The program storage system of claim 18 wherein applying at least one color layer to the first ITM includes applying at least one color layer to the first ITM while transporting the first sheet media between the first ITM and the first IMP.

19. The program storage system of claim 18 wherein the method further includes, with the first ITM and first IMP engaged, applying at least one additional color layer to the first ITM and transferring each additional color layer to the second sheet media.

20. The program storage system of claim 18 wherein the method further includes:

disengaging a second ITM from a second IMP,
applying at least one color layer to the second ITM while the second ITM and the second IMP are disengaged,
engaging the second ITM with the second IMP,
transporting the first sheet media between the second ITM and the second IMP, and
transferring the color layers from the second ITM onto the first sheet media.

21. The program storage system of claim 20 wherein the method further includes, with the second ITM and second IMP engaged, applying at least one additional color layer to the second ITM and transferring each additional color layer to the first sheet media.

22. The program storage system of claim 20 wherein the method further includes:

disengaging the second ITM from a second IMP after the color layers are transferred to the first sheet media and
transporting the second sheet media between the second ITM and the second IMP while the second ITM and the second IMP are disengaged.

23. The program storage system of claim 18 wherein the method further includes:

disengaging a second ITM from a second IMP,
applying at least one color layer to the second ITM, and
transporting the second sheet media between the second ITM and the second IMP while applying one of the color layers to the second ITM.

24. The program storage system of claim 18 wherein the method further includes:

disengaging a second ITM from a second IMP and
transporting the second sheet media between the second ITM and the
second IMP while the second ITM and the second IMP are disengaged.